

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2004-167106

(43)Date of publication of application : 17.06.2004

(51)Int.Cl.

A61F 2/64  
A61F 2/70  
A61F 2/74

(21)Application number : 2002-338626

(71)Applicant : NABCO LTD

(22)Date of filing : 21.11.2002

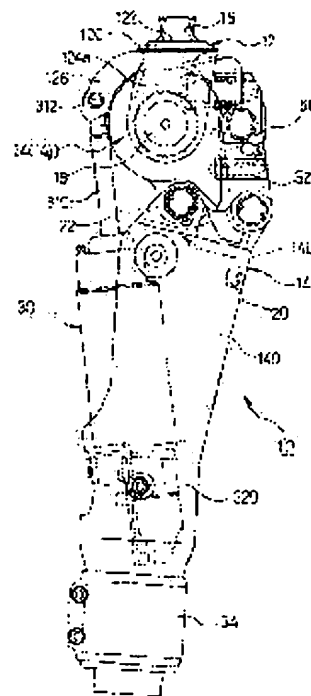
(72)Inventor : OKUDA MASAHIKO  
IMAKITA TOYOHICO  
FUKUI ARITOMO  
NAKAYA YOSHIKI

## (54) ARTIFICIAL LEG WITH FLEXIBLE KNEE BRAKING FUNCTION

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide an artificial leg with a flexible knee braking function for detecting to which part in a foot the load of a user of the artificial leg is applied by a mechanical method.

**SOLUTION:** In a artificial thigh 10, a joint upper member 12 comprising a knee plate 12 and a joint lower member 14 comprising a frame 140 and a base bracket 22 integrated with the frame 140 are knee-flexed. A hydraulic braking circuit, as well as a knee shaft, are structured in a housing member 24. The artificial thigh also has a link mechanism 50 for enabling slight relative movement between the housing member 24 and the base bracket 22 on the body side. The link mechanism 50 has an instantaneous center between the toe and heel of the foot part of the artificial leg, and the instantaneous center as a sensing point discriminates and detects whether the load of the user is applied to the heel or toe of the foot part. The hydraulic braking circuit is controlled based on the result in the detection by the link mechanism 50, so that the flexible knee braking is possible.



Express Mail No. EV746686448US

## LEGAL STATUS

[Date of request for examination] 12.04.2004

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]